

Exploring international migration at subnational scale: the Italian case

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ICT and statistics

The production of statistics in the social field is undergoing radical changes thanks also to the increased availability and accessibility of administrative records and to the development of ICT (Information and Communication Technology); the new technologies for the management and treatment of individual data, in fact, have enhanced the expansion of administrative databases. In particular, the traditional archives showed significant improvements in the completeness, timeliness and partially in the quality of information collected

Integration and full exploitation of the administrative data

- ISTAT has carried out a project in order to improve the quality of information on the place of birth of the migrants with a residence permit
- The residence permits database offers many information on non Eu citizens: age, gender, reason of the permit, citizenship, marital status, etc. In the recent years the integration of the database with other sources –through record linkage techniques – has allowed to add further information to the dataset exploited also in a longitudinal perspective
- The **birthplace name** is not standardized, wrong and sometimes missing.
- The correction of this information requires a process of data integration with other repositories of geographical names.

Eurostat Grant

Time Period

2013-2015

Name

*Standardization and geocoding
of place names in the database
of migratory flows*

Goal

Identify, map and analyze
migratory flows by normalization
and geocoding the birthplace
name registered in the
residence permits database

▼ PROVUFF	▼ SESSO	▼ NAZIONE_NASCI	▼ LOUGO_NASCIT.
AQ	M	ALBANIA	VLORE
MI	F	ITALIA	MILANO
MI	F	BRASILE	PIRACICABA
MO	F	ALBANIA	BERAT
PG	M	TUNISIA	CHEBBA
SS	F	COLOMBIA	BOGOTA
MI	M	CONGO	KINSHASA
MI	M	CINA POPOLARE	FUJIAN
PC	M	CROAZIA	ZAGABRIA
RE	M	PAKISTAN	SIALKOT

Processing Tasks

Normalization

- NIPORENI (1 rows)
- NICORENI (1 rows)
- NIHORENI (1 rows)

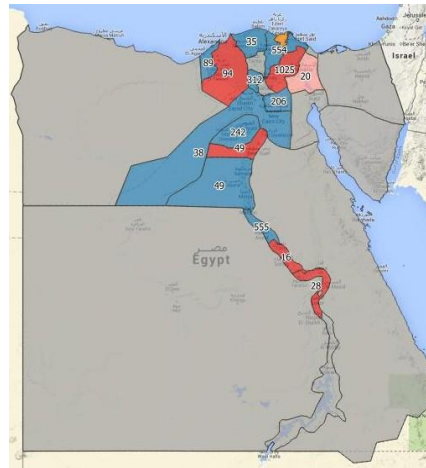


NIPORENI

Geocoding

luogo_nascita	json	lat	lng
BENI SUEF	{ "totalResultsCount": 1, "geonames": [{ "countryId": "357994", "adminCode1": "18", "countryName": "Egypt", "fcIName": "city, village,...", "countryCode": "EG", "lng": "31.09785", "fcodeName": "seat of a first-order administrative division", "toponymName": "Banī Suwayf", "fcl": "P", "name": "Banī Suwayf", "fcode": "PPLA", "geonameId": 359173, "lat": "29.07441", "adminName1": "Muḥāfazat Banī Suwayf", "population": 189624 }] }	29.07441	31.09785

Map production

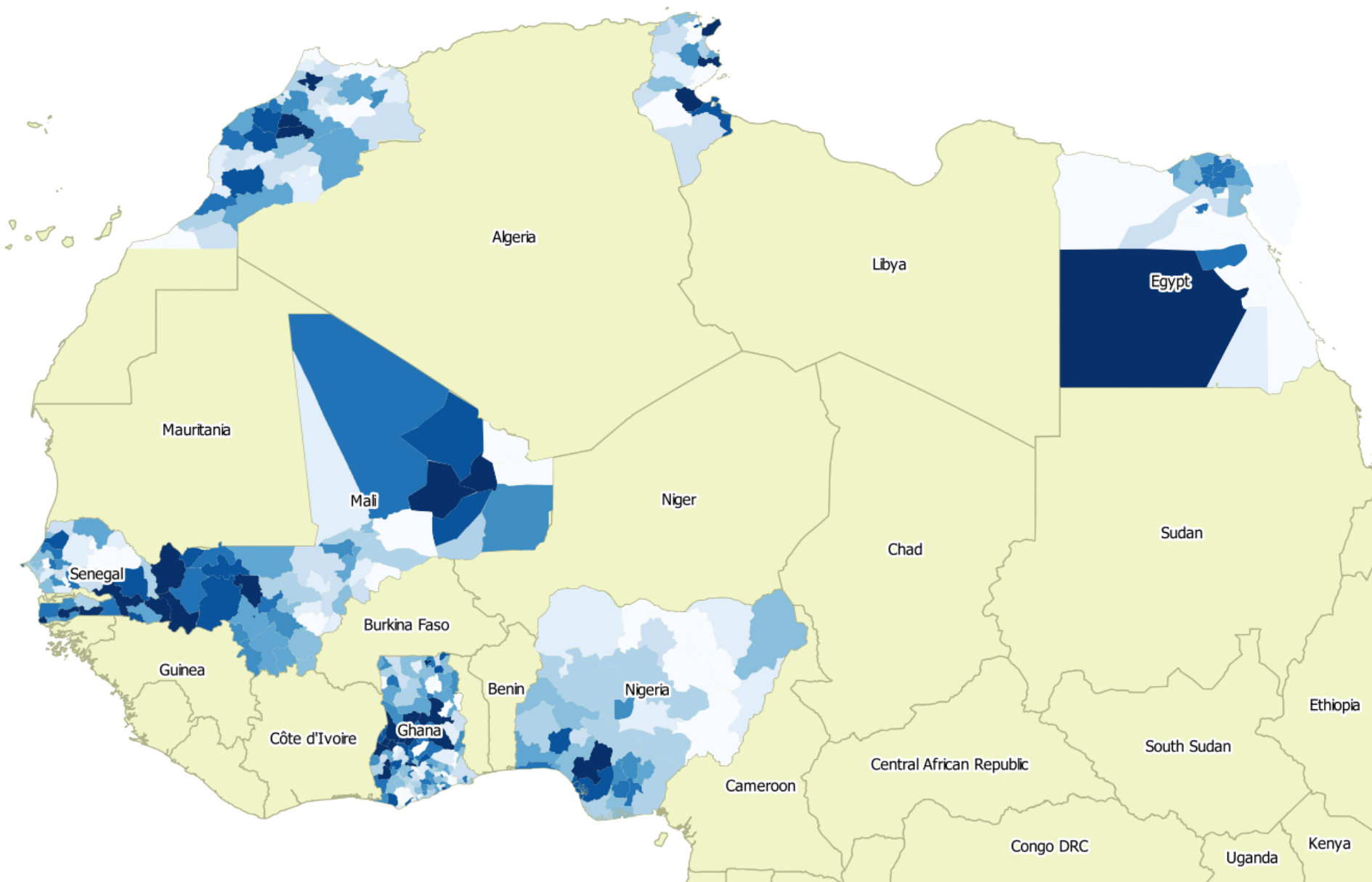


Country	Total number of records	Normalized and geocoded records	Rate of normalized and geocoded records
Morocco	66.228	63.388	95,71
China	59.052	58.564	99,17
Albania	49.733	48.917	98,36
India	41.346	40.735	98,52
Bangladesh	39.681	37.200	93,75
Pakistan	36.472	36.236	99,35
Ukraine	34.674	18.474	53,28
Egypt	30.377	29.424	96,86
Nigeria	29.928	26.205	87,56
Senegal	24.567	22.122	90,05
USA	23.705	23.116	97,52
Philippines	20.753	19.994	96,34
Sri Lanka	19.442	19.174	98,62
Moldova	16.740	9.400	56,15
Brazil	14.411	14.264	98,98
Tunisia	14.353	13.718	95,58
Russia	13.411	7.966	59,40
Peru	12.383	12.198	98,51
Ghana	10.837	9.736	89,84
Mali	10.559	8.399	79,54

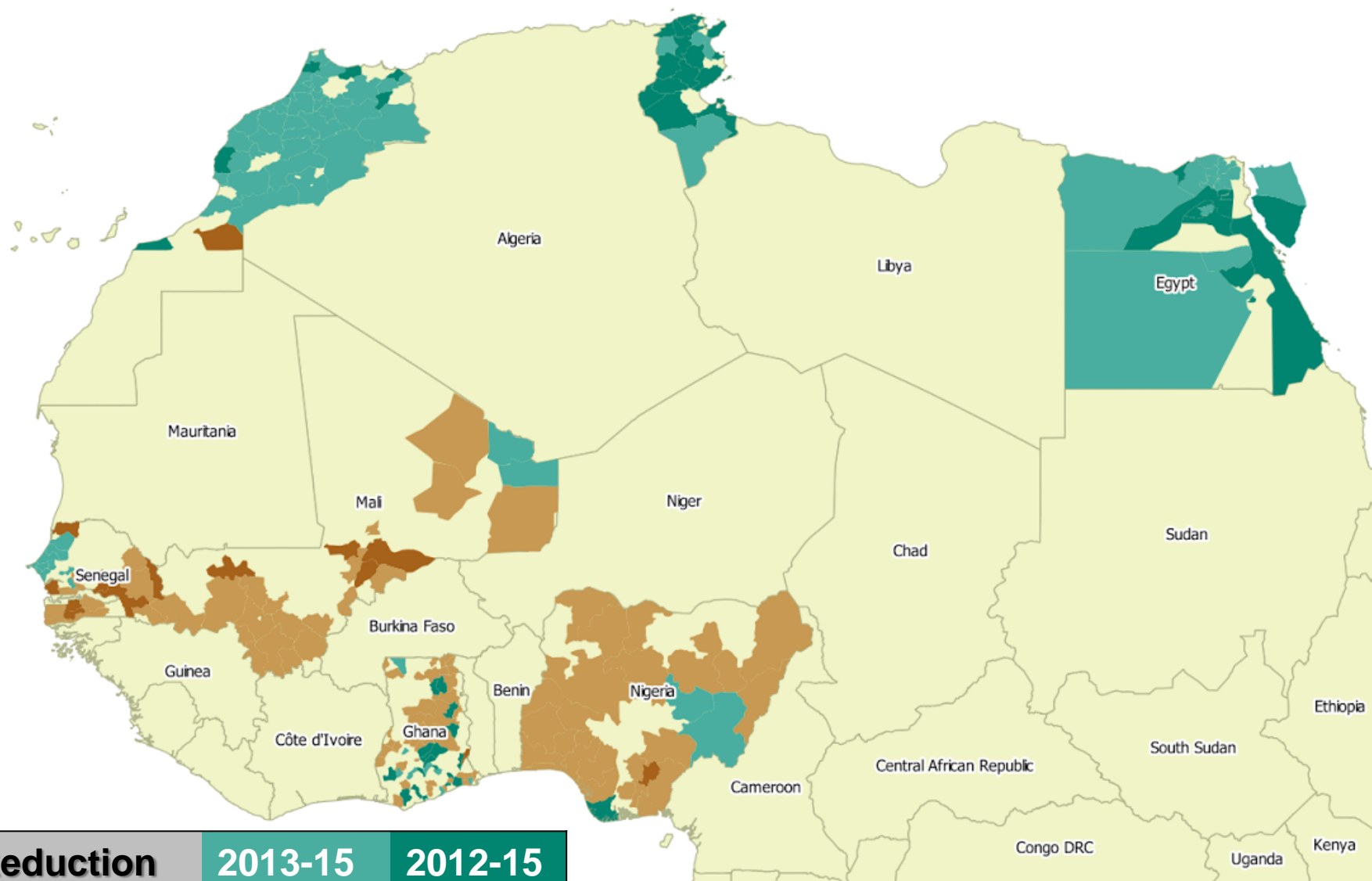
10. *Journal of the American Medical Association*, 2000; 283: 2686-2692.



2015



Change in migration flows over time (12-15)

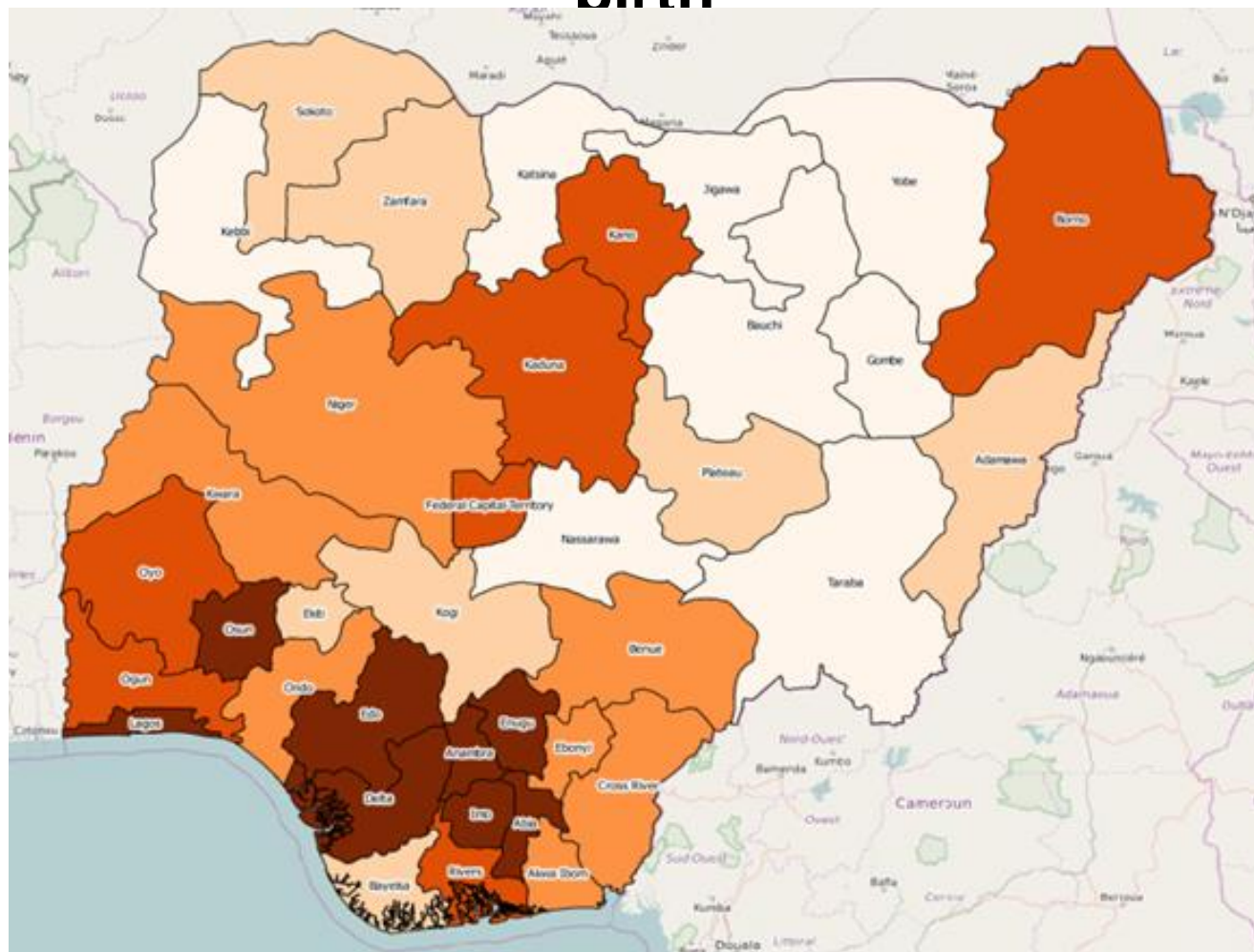


Examples: West Africa

If we consider an area particularly relevant for Italy in terms of recent in-flows of immigrant as West Africa we can clearly identify the principal migration routs and even distinguish the effects of the conflicts and of terrorism. The data take into account the incoming-flows reported between 2012 and 2015 from Mali and Nigeria, two of the most relevant countries for recent migrations towards Italy

10. *Journal of the American Medical Association*, 2000; 284: 2689-2694.

Immigrants from Nigeria registered in Italy in the period between 2012 and 2015 by region/province of birth



Some evidences

The analysis highlights migration flows coming from urban areas, but also from some territories affected by clashes and terroristic attacks. For Mali are strongly involved the cities of Bamako and Kayes, but also cities in the North of the country, as Gao, Kidal, and Timbuktu, that in 2012 had been occupied by Islamic fundamentalists. As regard to Nigeria, migrations to Italy affect principally the Edo State, the Delta State, Benin City, and Lagos, urban territories near the coast. Nevertheless migrants towards Italy come also from the area of Borno, considered as the headquarter of Boko Haram, and also the territories of Kano and Kaduna where the fundamentalist organization is very active

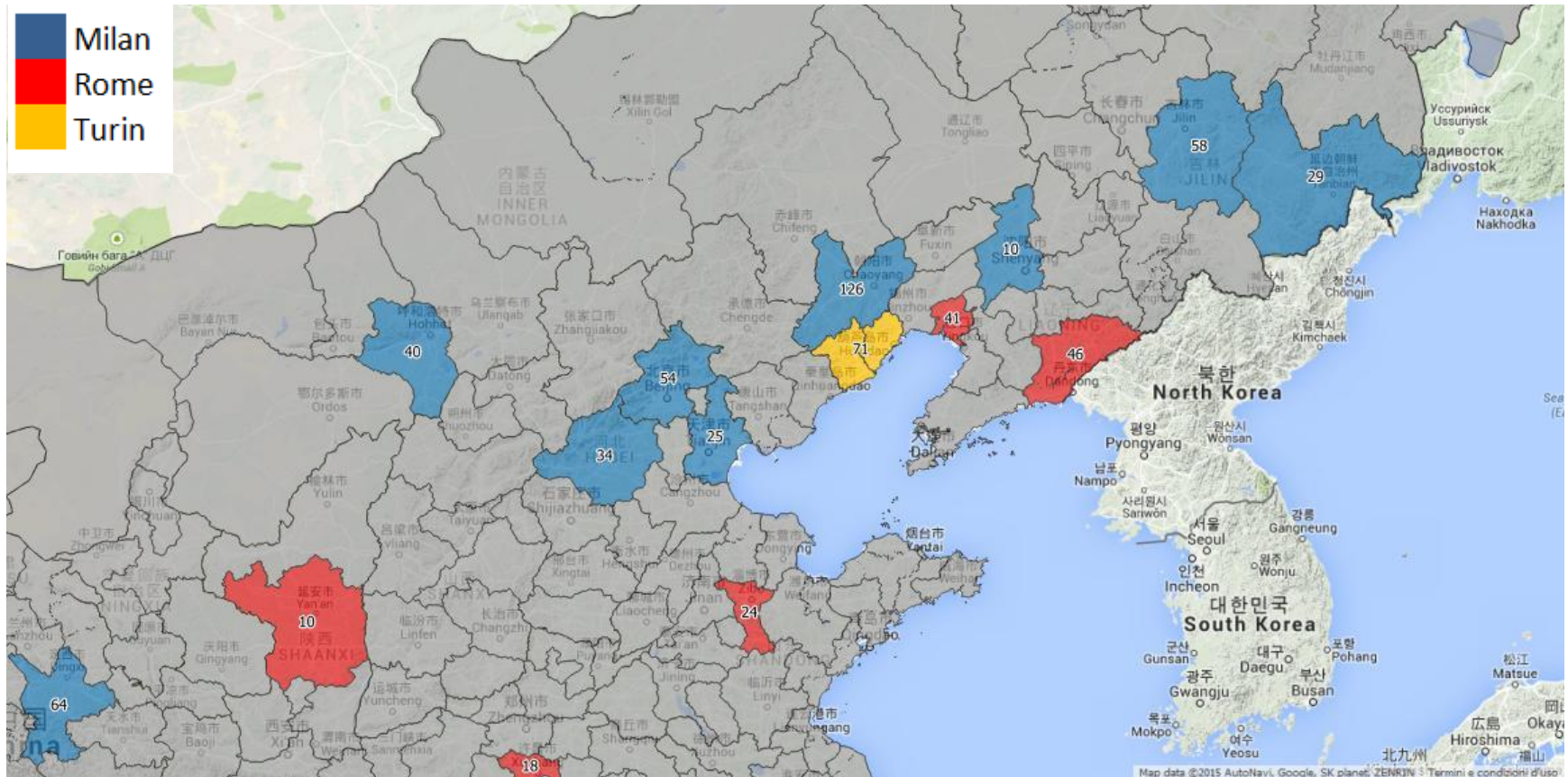
Examples: China



The origin of Chinese living in Italy

The Chinese community is one of the most important in Italy with almost 334,000 residence permits at the beginning of 2016. If we study the place of birth of Chinese arrived in Italy in 2015 we discover that more than 79% were born in the Zhejiang province

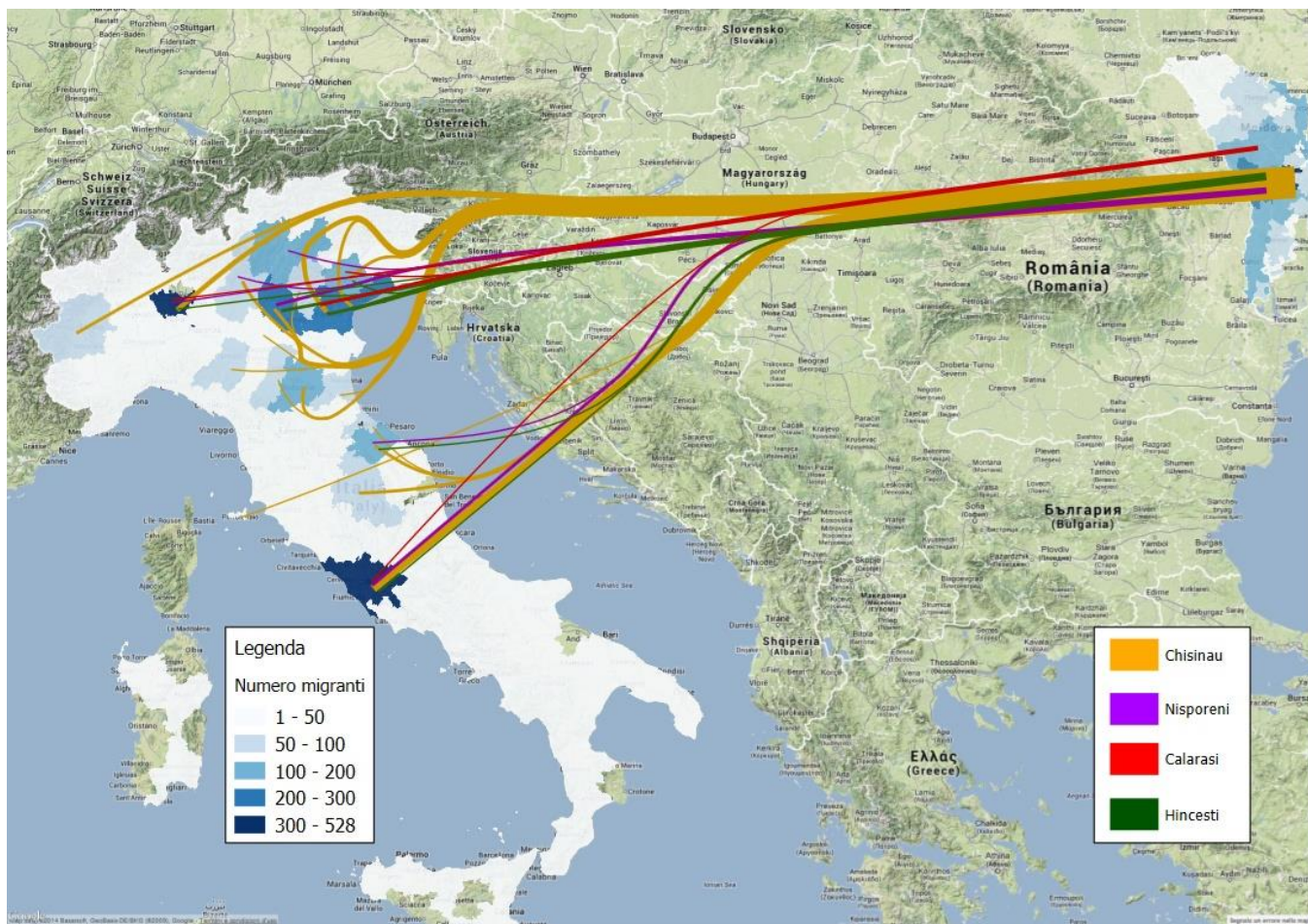
Migratory networks at subnational level: China



The origin of migrations from China

At the same time, we can identify the disaggregated Chinese migration network. For example, we can see that – as consequences of migratory chains - the Italian provinces attracts in different way the inhabitants of the different Chinese territories

Migratory networks at subnational level: Moldova



The origin of migrations from Moldova

The same happens for other countries such as Moldova. Immigrants come from few areas. The most relevant is Chisinau, followed by Claarasi and Hincesti. They are directed towards the North-east of Italy and to Rome. The map shows for some origin territories clear preferences in terms of destination

Perspectives

- The study shows that it is possible to exploit more intensively administrative sources.
- It is important to develop inter-institutional cooperation in order to obtain a better quality of administrative data. At the end of the study Istat suggested to the Ministry of Interior to develop a tool to allow information on place of birth to be collected correctly and shared without the need for ex post corrections.
- The satellite images could contribute in better understanding the steps of migration process in the continents for which is more difficult to have statistical data on internal migration.
- A new analytical approach is nowadays possible thanks to innovative tools and non standard data sources.
- In 2018 Istat has started a cooperation with European Commission – Joint Research Centre – in order to develop new analysis and instruments for data visualization of migration routes